## REMARKS

This Response is submitted in reply to the Office Action dated March 4, 2005. Claims 1-13, 15-28 and 30-35 are pending in the patent application. Claims 14 and 29 were withdrawn. Claims 1, 12, 17 and 22 have been amended for clarification purposes and not for any reasons of patentability. No new matter has been added by any of the amendments made herein. Claims 1, 4, 5-7, 9, 10, 12, 15, 16, 22, 24, 25, 26-28 and 30 were rejected under 35 U.S.C. § 102(e). Claims 2, 3, 8, 11, 17-21, 23 and 31-35 were rejected under 25 U.S.C. § 103(a). Applicant respectively submits, for the reasons set forth below, that the rejections have been overcome or are improper. Accordingly, Applicant respectfully requests reconsideration of the patentability of Claims 1-13, 15-28 and 30-35.

Claims 1, 4, 5-7, 9, 10, 12, 15, 16, 22, 24, 25, 26-28 and 30 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent No. 5,917,490 to Kuzunuki et al. ("*Kuzunuki*"). Applicant respectively disagrees with the Patent Office and submits that *Kuzunuki* does not disclose all of the elements of Clams 1-13, 15-28 and 30-35.

*Kuzunuki* is directed to an interactive information processing system and method which enables a user to physically manipulate electronic information on a display screen such as a computer screen. (See the Abstract). Specifically, *Kuzunuki* includes a desk cabinet 100 having a horizontally installed plane display 101 and a vertically installed front display 102 that are combined together. Additionally, the system includes an overhead camera 300 and projectors 5 and 106 which transforms physical or actual objects into images (Col. 7, lines 30-35; Figs. 1 and 2). As shown in Figs. 6A to 6C, an image object 104 (image of a document) is manipulated by the hands 200-1 and 200-2 of a user on a display. *Kuzunuki* is therefore directed to an information processing system which utilizes image recognition to enable users to scan and display images of physical objects on a display screen and manipulate the images of the objects on that display screen.

*Kuzunuki* does not disclose, teach or suggest one or more physical objects mounted on an operation surface where the physical objects include a visually identifiable visual marker included on the surface of each of the physical objects to identify the physical objects and the objects' location in the physical environment as in the claimed invention. Instead, *Kuzunuki* requires that each physical object be scanned as an image where the image is manipulated by the user. (Col. 7, line 58 to Col. 8, line 15). The system in *Kuzunuki* is therefore limited to the

displays 101 and 102 and cannot be readily expanded to the physical environment such as the walls of a room, a facsimile machine and or a printer.

Also, accuracy is an issue when scanning images in this manner. As stated in *Kuzunuki*, "[t]o enable direct touch of image objects and use of actual objects as man-machine interface parts, the attributes of the actual objects must be defined so that the processor can understand what they mean." (Col. 7, lines 57-63). Therefore, the objects must be scanned accurately to provide enough detail for the processor to identify each object. Scanning the objects therefore requires a significant amount of time and accuracy, and requires that the physical object be moved in front of the camera to be scanned or that the camera be moved to scan the object. In either case, such actions require substantial time and effort, which is not required by the claimed invention.

*Kuzunuki* also does not disclose, teach or suggest moving images on a display screen such as a computer screen from the computer screen to a physical object such as a tabletop, a wall of a room, a fax machine, a printer or other physical object. However, the Office Action states that *Kuzunuki* discloses this element as follows:

> *Kuzunuki* clearly teaches the image monitored by overhead camera 300 is fetched into image input I/F 406, then stored in memory 402. Data in memory 402 is processed by CPU 401 and the result is output from projectors 105 and 107 by image output I/F1 408 or image output I/F2 409 as an image to prove that the actual image can be picked/selected by the user and then projected back on the different location on the screen by using the projector. . . (See the Office Action, page 11).

> *Kuzunuki* clearly teaches the environment in which an image object can be handled in a sense of direct touch and the environment in which actual objects can be used as man-machine interface parts are established . . . and transferring of the object to be displayed by a facsimile is explained in FIG. 8. (See the Office Action, page 12).

Applicant respectfully submits that *Kuzunuki* does not disclose, teach or suggest an image that can be moved or transferred from a computer to a physical object. Instead, *Kuzunuki* discloses that the camera 300 takes a picture or image of an object on display 101 and converts it to an image to be manipulated by a user on the displays. *Kuzunuki* does not disclose, teach or suggest moving an image from either of the displays 101 or 102 to a surface of a physical object or

objects such as the surface of a fax machine, printer or the like. Therefore, *Kuzunuki* does not disclose, teach or suggest at least the elements of "a processing operation of recognizing the digital object dropped to a site on a surface of each of said physical objects" and "a processing operation of forming link information for linking the digital object to the drop site on the surface of each of said physical objects" as defined by Claim 1.

For at least these reasons, Claim 1 and Claims 3-5 which depend from Claim 1, are each patentability distinguished over *Kuzunuki* and are in condition for allowance.

Independent claims 6, 9, 12, 15, 22, 26-28 and 30 each include certain similar elements to Claim 1. Accordingly for the reasons provided above for Claim 1, Claims 6, 9, 12, 15, 22, 26-28 and 30, and Claims 7-8, 10-12, 13 and 23-25 which depend from these claims, respectively, are each patentability distinguished over *Kuzunuki* and in condition for allowance.

Claims 2, 3, 8, 11, 17-21, 23 and 31-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kuzunuki* in view of "the digital desk calculator," proceedings of ACM symposium on user interface software and technology (UIST) 11-13 November, 1991 written by Pierre Wellner ("*Wellner*"). Applicant respectively disagrees with and traverses this rejection for the following reasons.

As described in the previous response, Claims 2 and 3 depend from independent Claim 1. Claim 8 depends from independent Claim 6. Claim 11 depends from independent Claim 9. Claim 23 depends from independent Claim 22. Accordingly, Claims 2, 3, 8, 11 and 23 are allowable for at least the reasons set forth above with respect to independent Claims 1, 6, 9 and 22, respectively, and for the further reasons that the combination of *Kuzunuki* and *Wellner* fails to disclose, teach or suggest the subject matter of Claims 2, 3, 8, 11 and 23 in combination with the subject matter of independent Claims 1, 6, 9, and 22. For these reasons, Claims 2, 3, 8, 11 and 23 are patentably distinguished over the combination of *Kuzunuki* and *Wellner* and are in condition for allowance.

Regarding independent Claims 17 and 31, the Office Action states that *Kuzunuki* teaches all of the elements of these claims but does not teach that "the physical object is a portable computer capable of being moved in said information space in exchanging digital objects with other computers." (See, the Office Action, pages 8 and 9). The Patent Office therefore attempts to remedy the deficiencies of *Kuzunuki* using *Wellner*. Applicant respectfully submits that the

combination of *Kuzunuki* and *Wellner* does not disclose, teach or suggest the elements of Claims 17 and 31 for the following reasons.

*Kuzunuki* teaches the physical manipulation of an image of a physical object on a display such as a computer screen as described above. For example, the image of the user hands can manipulate an image of a file to move the file to different positions on the display screen. As described above, *Kuzunuki* does not disclose, teach or suggest utilizing a visual marker, a processing operation that recognizes a digital object dropped onto a site on a surface of physical object and a processing operation of forming link information for linking the digital object to the drop site on the surface of the physical object.

Similarly, *Wellner* teaches a system that allows a user to interact with paper and electronic objects by physically touching them to manipulate them. However, *Wellner* also does not disclose, teach or suggest dropping or transferring a digital object onto a site or surface of a physical object where each physical object includes a visual marker on a surface of the physical objects. Accordingly, the combination of *Kuzunuki* and *Wellner* does not disclose, teach or suggest the elements of Claims 17 and 21.

For at least these reasons, Claim 17 and Claims 18 to 21 which depend from Claim 17, and Claim 31 and Claims 32-35 which depend from Claim 31, are each patentably distinguished over the combination of *Kuzunuki* and *Wellner* and are in condition for allowance.

In light of the above, Applicant respectively submits that Claims 1-13, 15-28 and 30-35 are patentable over the art of record because neither *Kuzunuki* or *Wellner* when taken alone or in combination, disclose, teach or suggest all the elements of these claims. Accordingly, Applicant respectively requests that Claims 1-13, 15-28 and 30-35 be deemed allowable at this time and that a timely notice of allowance be issued in this case.

No fees are due in this case. If any other fees are due in connection with this application as a whole, the Patent Office is authorized to deduct the fees from Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. (112857-251) on the account statement.

Respectfully submitted,

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